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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/068,525

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Vinod Kumar Choyi

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EXAMINER

SHAND, ROBERTA A

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/068,525

Applicant(s)

CHOYI ET AL.

Examiner

Roberta A. Shand

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/18/02, 5/17/04</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Regarding claim 1, the word "means" is preceded by the word(s) "home agent", "Internet IP", "micro-mobility network routing protocol" and "wireless device" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function.

However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

3. Regarding claim 31, the word "means" is preceded by the word(s) "mobile node advertisement extension (MNAE) structure", "base station router (BSR) extension structure", "multicast address extension (MAE) structure" and "neighbor update extension (NUE) structure" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2665

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-6, 8-16, 18-26 and 28-31 are rejected under 35 U.S.C. 102(e) as being anticipated by El-Malki (U.S. 6947401 B2).

6. Regarding claims 1 and 31, El-Malki teaches (fig. 3) a micro-mobility network routing system comprising: home agent means (345); Internet IP means (340); micro-mobility network routing protocol means (375); wireless device means (305); wherein said home agent means communicates with said wireless device means via said Internet IP means under supervision of said micro-mobility network routing protocol means (col. 4, lines 61 – col. 5, line 46); and the Internet IP means further comprises one or more Main Access Routers, Routers, and/or Base Station Routers (310, 315).

7. Regarding claims 2, 12 and 22, as for the micro-mobility network routing protocol means further comprises: Mobile Node Advertisement Extension (MNAE) structures; Base Station Router (BSR) Extension structures; Multicast Address Extension (MAE) structures; Neighbor Update Extension (NUE) structures; wherein the structures augment Mobile IP communication protocols to affect micro-mobility network routing functionality and IP connectivity between said home agent means and said wireless device means, these structures are inherent in El-Malki's system in order for the system to be properly manage mobility (abstract).

Art Unit: 2665

8. Regarding claims 3, 13 and 23, El-Malki teaches (fig. 3 and abstract) the home agent means. also a wireless device

9. Regarding claims 4, 14 and 24, El-Malki teaches (abstract) the micro-mobility network routing protocol means is distributed software operating on main access routers, routers, and base station routers.

10. Regarding claims 5, 15 and 25, El-Malki teaches (col. 8, lines 1-16 and fig. 9) the micro-mobility network routing protocol means implements a make-before-break routing protocol.

11. Regarding claims 6, 16 and 26, El-Malki teaches (fig. 3) wherein said communication occurs over the Internet.

12. Regarding claims 8, 18 and 28, El-Malki teaches (fig. 3) one or more components of said system is implemented on a wireless radio transceiver.

13. Regarding claims 9, 19 and 29, El-Malki teaches (fig. 1) the wireless device operates within foreign network domain.

14. Regarding claims 10, 20 and 30, El-Malki teaches (fig. 1) the wireless device operates within home network domain.

Art Unit: 2665

15. Regarding claim 11, El-Malki teaches routing method comprising: communicating to a base station router (310, 315) that mobile node (305) has entered the coverage area of a wireless domain via a neighbor binding extension message (fig. 8); communicating to main access router the MN address from said BSR (310, 315) with BSR extension message; communicating to said BSR the multicast address assigned to said MN with a multicast address extension message (col. 3, lines 14-25); and communicating said BSR of characteristics with mobile node extension message; the MN advertisement (fig. 4) wherein said communication occurs over an Internet IP means (340); the communication occurs between a home agent means and a wireless device means (col. 3, line 61 – col. 4, line 46); and said communication under supervision of micro-mobility network routing protocol means (375).

16. Regarding claim 21 El-Malki teaches a computer usable medium having computer-readable program code means providing micro-mobility network routing functionality, said computer-readable program means comprising: computer program code means for communicating to a base station router (310,315) that a mobile node (305) has entered the coverage area of a wireless domain (foreign or home domain) via a neighbor binding extension message (fig. 8); computer program code means for communicating to a main access router the MN IP address from said BSR (310, 315) with a BSR extension message; computer program code means for communicating said BSR the multicast address assigned to said MN with a multicast address extension message (col. 3, lines 14-25); and computer program code means for communicating to the BSR (310, 315) of the MN characteristics with a mobile node advertisement extension message (fig. 4); wherein said communication occurs over an Internet

Art Unit: 2665

IP means (340); said communication occurs between home agent means and a wireless device means (col. 3, line 61 – col. 4, line 46); and said communication is under supervision of a micro-mobility network routing protocol means (375).

17. Regarding claim 31, El-Malki teaches a micro-mobility network routing encoded propagated signal data stream constructed using mobile node advertisement structure means (; extension base station router (310, 315) extension structure means; multicast address extension (MAE) structure means; and neighbor update extension (NUE) structure means; wherein the signal is at least partially communicated via wireless communication means; and said encoded signal communicates between two nodes distributed network over the Internet.

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 7, 17 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over El-Malki.

Art Unit: 2665

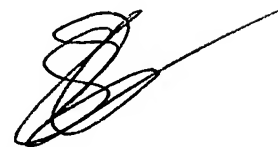
20. Regarding claims 7, 17 and 27, as for one or more components of said system is implemented on a personal computer (PC), It would have been obvious to one of ordinary skill in the art to adapt PC's to El-Malki's system as they are well known in the art.

Conclusion

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberta A Shand whose telephone number is 571-272-3161. The examiner can normally be reached on M-F 9:00am-5:30pm.
2. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
3. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Roberta A Shand
Examiner
Art Unit 2665



STEVEN NGUYEN
PRIMARY EXAMINER